permeability of at most about 2000 cm^3/m^2 at 23°C and 0% RH, per 1μm ~~thickness, during 24 h~~, at 1 atm.

Sub B1

2. (Amended) Multilayer structure for packaging according to claim 1, wherein the outermost layers comprise a heat sealable thermoplastic polymer.

3. (Amended) Multilayer structure for packaging, according to claim 1, wherein said expanded polymer layer in its cells and/or open cavities is filled with an anaerobic gas or has a lower partial pressure of oxygen.

A1

4. (Amended) Multilayer structure for packaging, according to claim 1, ~~wherein~~ the expanded polymer has at least about 500 $cells/mm^3$, preferably at least about 1000 $cells/mm^3$.

Sub B2

5. (Amended) Multilayer structure for packaging, according to claim 1, wherein said expanded polymer layer has cells, which are substantially closed without connection between the cellular cavities.

B

6. (Amended) Multilayer ~~structure for packaging, according to claim 1, wherein~~ the polymer material in said expanded polymer layer also is a polymer having gas barrier properties.

7. (Amended) Multilayer structure for packaging, according to claim 6, wherein the polymer material of the expanded polymer has ~~an~~ oxygen ~~gas~~ permeability of at most about 1000 cm^3/m^2 at 23°C and 0% RH~~, per 1 μm~~ thickness, during 24 h, at 1 atm.

8. (Amended) Multilayer structure for packaging, according to claim 1, wherein the expandable polymer material comprises a first rigid component and a second ductile polymer component.

A1

9. (Amended) Multilayer structure for packaging, according to claim 8, ~~wherein~~ the first rigid polymer component is selected from the group essentially ~~comprising~~ a high density polyethylene and high ~~melt~~-strength polypropylene ~~and~~ that the second, ductile polymer component ~~has~~ been selected from the group essentially comprising low density polyethylene and a general-purpose grade of polypropylene.

Sub B2

10. (Amended) Multilayer structure for packaging, according to claim 8, wherein the mixing ratio of the first, rigid polymer component to the second, ductile polymer component in the expanded polymer layer is between 1:3 and 3:1, preferably from about 1.25:1 to about 1.5:1.

11. (Amended) Multilayer structure for packaging, according to claim 1, wherein said gas barrier layer comprises a material selected from the group consisting of

ethylenevinyl alcohol (EVOH), polyamide (PA), polyvinylidene chloride (PVDC), polyvinyl alcohol (PVOH), polyethylene naphthenate (PEN), polyacrylonitrile (PAN), copolymers from acrylonitrile and butylene, SiOx or carbon plasma coatings ("diamond coatings").

12. (Amended) Multilayer structure for packaging, according to claim 1, wherein it further comprises on each side of the expanded polymer a homogeneous layer contributing to the total rigidity of the multilayer structure, which layer comprises a polymer selected from a group consisting of high density polyethylene (HDPE), polypropylene (PP), polyethyleneterephtalate (PET) and polybutyleneterephtalate (PBT).

A1

13. (Amended) Multilayer structure for packaging, according to claim 1, ~~wherein~~ said gas barrier layers, on each side of ~~the~~ expanded polymer layer, have a thickness and comprise a material such ~~as~~ to contribute to the total rigidity of the multilayer structure, preferably polyamide (PA), PEN, EVOH,PAN or copolymers from acrylonitrile and butylene, most preferably PA.

Sub B4

14. (Amended) Multilayer structure for packaging according to claim 1, wherein said layers have been laminated to each other in one operation by means of co-extrusion of the layers.

15. (Amended) Multilayer structure for packaging according to claim 1, wherein it comprises on each side of said expanded polymer layer, a paper layer.

16. (Amended) Multilayer structure for packaging according to claim 1, wherein the gas barrier layer is directly bonded to the expanded polymer layer.

17. (Amended) Multilayer structure according to claim 15, wherein the material in said gas barrier layer at least comprises a polymer selected from the group consisting of ethylenevinyl alcohol (EVOH) or polyvinyl alcohol (PVOH).

18. (Amended) Multilayer structure according to claim 15, wherein the gas barrier polymer has been applied onto the paper layers by means of liquid film coating technology.

19. (Amended) Multilayer structure according to claim 15, wherein the gas barrier polymer material further comprises a copolymer additive containing functional groups selected from the group consisting essentially of carboxylic acid groups, carboxylic acid anhydride groups, metal salts of carboxylic acids and acetate groups.

20. (Amended) Multilayer structure according to claim 15, wherein the gas barrier polymer comprises PVOH and an ethylene acrylic acid copolymer (EAA).

Sub B5

21. (Amended) Multilayer structure according to claim 15, ~~wherein the paper layers~~ have a surface weight ~~of~~ between about 20 g/m^2 and about 120 g/m^2, preferably of between about 30 g/m^2 and about 60 g/m^2, most preferably of between about 40 g/m^2 and about 60 g/m^2.

22. (Amended) Method for manufacturing a multilayer structure according to claim 1, at least comprising the steps of mixing a granulate of the expandable polymer material with a chemical, carbon dioxide-generating blowing agent during simultaneous heating, for decomposition of the chemical blowing agent and for the formation of a molten plastic mass with homogeneously distributed carbon dioxide blisters; compressing the molten carbon dioxide-containing plastic mass to an excess pressure during simultaneous cooling for converting the carbon dioxide blisters into an overcritical state, and forcing the compressed, cooled plastic melt through a nozzle aperture during simultaneous expansion of the overcritical carbon dioxide blisters for the formation of the expanded polymer layer.

23. (Amended) Method according to claim 22, wherein the chemical, carbon dioxide-generating blowing agent is selected from the group essentially comprising sodium hydrocarbonate, citric acid and mixtures thereof, and that the quantity of blowing agent is approximately 0.5-2.5 % of the total weight of the mixture.

24. (Amended) The method as claimed in claim 22, wherein the molten, cooled plastic mass is forced through the nozzle aperture at the same time as molten, homogeneous polymer, by a co-extrusion process, is forced through corresponding nozzle apertures for the formation of the surrounding outer layers of the multilayer structure.

25. (Amended) Method for manufacturing a multilayer structure as defined in claim 15, further comprising the steps of coating each of the two paper layers with a gas barrier polymer, advancing said paper layers towards each other, applying and expanding said expandable polymer between said paper layers and laminating the layers to each other.

26. (Amended) Method for manufacturing a multilayer structure as defined in claim 15, further comprising the steps of coating each of the two paper layers with a gas barrier polymer, heating the paper layers, advancing said coated paper layers towards each other in such a way that the gas-barrier coated sides are facing each other, applying and expanding said expandable polymer between said paper layers and laminating the layers to each other by means of heat fusion.

27. (Amended) Method for manufacturing a multilayer structure as defined in claim 15, at least comprising the steps of coating each of the two paper layers with an aqueous dispersion of a gas barrier polymer composition by means of liquid film coating technology, subsequently drying the coated paper layers at high temperature and advancing

them towards each other in such a way that the gas-barrier coated sides are facing each other, laminating the paper layers to each other while still hot by simultaneously applying and expanding said expandable polymer material between them.

28. (Amended) Method for manufacturing a multilayer structure according to claim 25, further comprising the step of coating each of the paper layers on its other side with a heat sealable liquid barrier polymer.

29. (Amended) Dimensionally stable packaging container manufactured from the multilayer structure as defined in claim 1.

30. (Amended) An extrusion-blow moulded container having a multilayer wall structure as defined in claim 1.

31. (Amended) Method for manufacturing an extrusion-blow moulded container according to claim 30, at least comprising the steps of mixing a granulate of the expandable polymer material with a chemical, carbon dioxide-generating blowing agent during simultaneous heating, for decomposition of the chemical blowing agent and for the formation of a molten plastic mass with homogeneously distributed carbon dioxide blisters, compressing the molten carbon dioxide-containing plastic mass to an excess pressure during simultaneous cooling for converting the carbon dioxide blisters into an overcritical state,

and forcing the compressed, cooled plastic melt through an annular nozzle aperture during simultaneous expansion of the overcritical carbon dioxide blisters for the formation of a hose of foamed structure, the forming of the hose of foamed structure taking place at the same time as molten, homogeneous polymer, by a co-extrusion process, is forced through corresponding, annular nozzle apertures for the formation of the surrounding outer layers of the multilayer structure, accommodating the multilayer structured hose in a mould cavity and inflating the hose by means of a high pressure gas against the inner walls of the mould cavity for the formation of the extrusion-blow moulded container having said multilayer wall structure.